CHARGE NUMBER: 1101

PROGRAM TITLE: ENTOMOLOGICAL RESEARCH

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PROJECT LEADER: D. L. FAUSTINI

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I. CIGARETTE BEETLE PHYSIOLOGICAL STUDIES

A. Field

Testing has continued in the warehouse evaluating several candidate pyrethroid space sprays. One particular spray is currently being evaluated at various concentrations to obtain dose-response data. The supplier of the insecticide has been contacted and requested to submit analytical data regarding breakdown products and/or residual levels. R&D anticipates making a recommendation for its use by December, 1985.[1]

It has been shown when export cut-filler which is packaged in polyethylene bags and fumigated with PH_3 for the required 96 hour period, the PH_3 becomes "trapped" within the bag long after the source of the gas has been exhausted and removed. An additional 30 days are added to the fumigation to allow the PH_3 to evolve from the exposed bags. The additional time creates problems in shipping/handling since APHIS only allows a 30 day grace period for the issuance of a Phytosanitary Certificate at the conclusion of the 96 hour fumigation. Therefore, a study was initiated to determine whether the phosphine that remains within the polyethylene bags represent an individual fumatorium for the control of the CB and to establish the length of time requried to achieve mortality. If the study proves successful then APHIS will be approached for an extension for more time on the Phytosanitary Certificate.[2]

B. Laboratory

Studies have continued on the attractive properties of tobacco molds by the CB. Replication data are being gathered in a dual-choice pitfall bioassay chamber.[3]

Several double-faced adhesives were evaluated as candidates to trap CB in an R&D designed pheromone trap, none of which were found to be satisfactory. Glue products that can be directly applied to a cardboard surface are now being calculated.[4]

II. ASSISTANCE TO OTHERS

One hundred percent CB mortality was achieved at the 20th St. conditioners used for phytosanitary certification of export blended tobacco.[5]

Source: https://www.industrydocuments.ucsf.edu/docs/lxgm0000

III. REFERENCES

1. Faustini, D. L. Notebook No. 7746, pp. 122-125; 128.

2. Faustini, D. L. Notebook No. 7746, pp. 126-127.

3. Minor, M. F. Notebook No. 7197, p. 179.

4. Drew, S. Notebook No. 7850, pp. 202-203.

5. Deubler, R. C. Memo to D. T. Wagner. Documentation of Beetle Kill at 20th St. 1985 October 3.

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